Data from Various Commercial Fisheries for Arctic Charr, *Salvelinus alpinus* (L.), in the Nunavut Settlement Area, Northwest Territories, 1993 and 1994

G.W. Carder

Central and Arctic Region
Department of Fisheries and Oceans
Winnipeg, Manitoba R3T 2N6

1995

Canadian Data Report of Fisheries and Aquatic Sciences 962

Fisheries and Oceans | Pêches et Océans

Canada

2008-03583/

Canadian Data Report of

Fisheries and Aquatic Sciences 962

1995

DATA FROM VARIOUS COMMERCIAL FISHERIES FOR ARCTIC CHARR, *Salvelinus alpinus* (L.), IN THE NUNAVUT SETTLEMENT AREA, NORTHWEST TERRITORIES, 1993 AND 1994

by

G.W. Carder

Central and Arctic Region

Department of Fisheries and Oceans

Winnipeg, Manitoba R3T 2N6

This is the 99th Data Report

from the Central and Arctic Region, Winnipeg

© Minister of Supply and Services Canada 1995

Cat. no. Fs 97-13/962E ISSN 0706-6465

Correct citation for this publication is:

Carder, G.W. 1995. Data from various commercial fisheries for Arctic charr, *Salvelinus alpinus* (L.), in the Nunavut Settlement Area, Northwest Territories, 1993 and 1994. Can. Data Rep. Fish. Aquat. Sci. 962: vi + 39 p.

TABLE OF CONTENTS

	Page
ABSTRACT/RÉSUMÉ	vi
INTRODUCTION	1
MATERIALS AND METHODS	1
The fishery	1
Sampling program	1
DATA ANALYSIS	1
RESULTS	2
ACKNOWLEDGMENTS	2
REFERENCES	2

LIST OF FIGURES

Figure		Page
1	Map of Canada showing commercial fishing areas for anadromous Arctic charr referred to in this report	4
2	Map of the Cambridge Bay area showing commercial fishing sites	5
3	Map of the Coppermine area showing Coppermine River	6
4	Map of the Chesterfield Inlet area showing 1993 commercial and subsistence fishing zones	7
5	Map of the Chesterfield Inlet area showing 1994 commercial and subsistence fishing zones	8
6	Map of the District of Keewatin showing commercial fishing sites	9
7	Map of the Pelly Bay area showing commercial fishing sites	10

LIST OF TABLES

Table		Page
1	Sampling dates during the years 1993 and 1994	11
2	Commercial quotas and annual harvest of anadromous Arctic charr by sampled fishery, 1993 and 1994	12
3	Summary of biological data from all commercial fisheries sampled during the years 1993 and 1994	13
4	Age composition of Arctic charr taken by experimental gill net (139 mm) at Ekalluk River, 1993	14
5	Length composition of Arctic charr taken by experimental gill net (139 mm) at Ekalluk River, 1993	14
6	Age composition of Arctic charr taken by experimental gill net (139 mm) at Ekalluk River, 1994	15
7	Length composition of Arctic charr taken by experimental gill net (139 mm) at Ekalluk River, 1994	15
8	Age composition of Arctic charr taken by the commercial fishery at Ekalluk River, 1994	16
9	Length composition of Arctic charr taken by the commercial fishery at Ekalluk River, 1994	16
10	Age composition of Arctic charr taken by the commercial fishery at Paliryuak River, 1993	17
11	Length composition of Arctic charr taken by the commercial fishery at Paliryuak River, 1993	17
12	Age composition of Arctic charr taken by the commercial fishery at Halovik River, 1993	18
13	Length composition of Arctic charr taken by the commercial fishery at Halovik River, 1993	18
14	Age composition of Arctic charr taken by the commercial fishery at Halovik River, 1994	19
15	Length composition of Arctic charr taken by the commercial fishery at Halovik River, 1994	19

Table		Page
16	Age composition of Arctic charr taken by the commercial fishery at Lauchlan River, 1993	20
17	Length composition of Arctic charr taken by the commercial fishery at Lauchlan River, 1993	20
18	Age composition of Arctic charr taken by the commercial fishery at Jayco River, 1993	21
19	Length composition of Arctic charr taken by the commercial fishery at Jayco River, 1993	21
20	Age composition of Arctic charr taken by the commercial fishery at Jayco River, 1994	22
21	Length composition of Arctic charr taken by the commercial fishery at Jayco River, 1994	22
22	Age composition of Arctic charr taken by the commercial fishery at Kulgayuk River, 1993	23
23	Length composition of Arctic charr taken by the commercial fishery at Kulgayuk River, 1993	23
24	Age composition of Arctic charr taken by the commercial fishery at Ellice River, 1993	24
25	Length composition of Arctic charr taken by the commercial fishery at Ellice River, 1993	24
26	Age composition of Arctic charr taken by the commercial fishery at Ellice River, 1994	25
27	Length composition of Arctic charr taken by the commercial fishery at Ellice River, 1994	25
28	Age composition of Arctic charr taken by the commercial fishery at Coppermine River, 1993	26
29	Length composition of Arctic charr taken by the commercial fishery at Coppermine River, 1993	26
30	Age composition of Arctic charr taken by the commercial fishery at Coppermine River, 1994	27
31	Length composition of Arctic charr taken by the commercial fishery at Coppermine River, 1994	27
32	Age composition of Arctic charr taken by the commercial fishery at Steep Bank Bay, 1994	28
33	Length composition of Arctic charr taken by the commercial fishery at Steep Bank Bay, 1994	28
34	Age composition of Arctic charr taken by the commercial fishery at Chesterfield Inlet, Zone 2, 1994	29
35	Length composition of Arctic charr taken by the commercial fishery at Chesterfield Inlet, Zone 2, 1994	29
36	Age composition of Arctic charr taken by the commercial fishery at Chesterfield Inlet, Zone 3, 1994	30
37	Length composition of Arctic charr taken by the commercial fishery at Chesterfield Inlet, Zone 3, 1994	30
38	Age composition of Arctic charr taken by the commercial fishery at Fish Bay (Chesterfield Inlet), 1994	31
39	Length composition of Arctic charr taken by the commercial fishery at Fish Bay (Chesterfield Inlet), 1994	31
40	Age composition of Arctic charr taken by the commercial fishery at Rankin Inlet, 1993	32
41	Length composition of Arctic charr taken by the commercial fishery at Rankin Inlet, 1993	32
42	Age composition of Arctic charr taken by the commercial fishery at Baker Foreland, 1993	33
43	Length composition of Arctic charr taken by the commercial fishery at Baker Foreland, 1993	33

Table		Page
44	Age composition of Arctic charr taken by the commercial fishery at Ferguson River, 1993	34
45	Length composition of Arctic charr taken by the commercial fishery at Ferguson River, 1993	34
46	Age composition of Arctic charr taken by the commercial fishery at Ferguson River, 1994	35
47	Length composition of Arctic charr taken by the commercial fishery at Ferguson River, 1994	35
48	Age composition of Arctic charr taken by the commercial fishery at Pistol Bay, 1994	36
49	Length composition of Arctic charr taken by the commercial fishery at Pistol Bay, 1994	36
50	Age composition of Arctic charr taken by the commercial fishery at Wilson Bay, 1994	37
51	Length composition of Arctic charr taken by the commercial fishery at Wilson Bay, 1994	37
52	Length composition of Arctic charr taken by the commercial fishery at Arrowsmith River, 1993	38
53	Length composition of Arctic charr taken by the commercial fishery at Becher River, 1993	38
54	Length composition of Arctic charr taken by the commercial fishery at Keith Bay, 1993	39

ABSTRACT

Carder, G.W. 1995. Data from various commercial fisheries for Arctic charr, *Salvelinus alpinus* (L.), in the Nunavut Settlement Area, Northwest Territories, 1993 and 1994. Can. Data Rep. Fish. Aquat. Sci. 962: vi + 39 p.

Biological samples from commercially caught anadromous Arctic charr were collected during 1993 and 1994. Samples were obtained from Arrowsmith River, Baker Foreland, Becher River, Chesterfield Inlet Zone 2, Chesterfield Inlet Zone 3, Coppermine River, Ekalluk River, Ellice River, Ferguson River, Fish Bay (Chesterfield Inlet), Halovik River, Jayco River, Keith Bay, Kulgayuk River, Lauchlan River, Paliryuak River, Pistol Bay, Rankin Inlet, Steep Bank Bay and Wilson Bay.

Key words: catch composition; catch statistics; commercial fishing; exploitation; fishery management; monitoring.

RÉSUMÉ

Carder, G.W. 1995. Data from various commercial fisheries for Arctic charr, *Salvelinus alpinus* (L.), in the Nunavut Settlement Area, Northwest Territories, 1993 and 1994. Can. Data Rep. Fish. Aquat. Sci. 962: vi + 39 p.

Des échantillons biologiques d'ombles chevalier anadromes ont été recueillis en 1993 et en 1994. Il s'agissait de prises commerciales provenant des rivières Arrowsmith, Becher, Coppermine, Ekalluk, Ellice, Ferguson, Halovik, Jayco, Kulgayuk, Lauchlan et Paliryuak, de la pointe Baker, des zones 2 et 3 du bras Chesterfield, des baies Fish (bras Chesterfield), Keith, Pistol, Steep Bank et Wilson, et du bras Rankin.

Mots clés : composition des prises; statistiques sur les prises; pêche commerciale; exploitation; gestion de la pêche; surveillance.

INTRODUCTION

The Department of Fisheries and Oceans (DFO) has monitored the commercial fishery at Cambridge Bay, Northwest Territories (NWT) since 1971 (Carder 1981, 1983, 1988, 1991, 1993; Carder and Low 1985; Carder and Stewart 1989; Kristofferson and Carder 1980) and in the Rankin Inlet, NWT, area since 1972 (Carder 1983, 1988, 1991, 1993; Carder and Peet (1983); Carder and Low 1985; Carder and Stewart 1989; MacDonell 1989). In addition, DFO has monitored the commercial fishery at Coppermine River since 1986 (Carder 1988, 1993; Carder and Stewart 1989) at Pelly Bay since 1985 (Carder 1988, 1993). Information collected from biological samples taken from the above commercial fisheries were used to assess the status of anadromous Arctic charr stocks found there. Biological data obtained from the above commercial fisheries during 1993 and 1994 are presented in this report.

MATERIALS AND METHODS

THE FISHERY

The early history of the Cambridge Bay fishery is described by Barlishen and Webber (1973) and the fishery in the Rankin Inlet area by Carder and Peet (1983). Recent data and a description of the Cambridge Bay area can be found in Carder (1993); Carder and Low (1985); Carder and Stewart (1989); Kristofferson and Carder (1980). Similar information for the Rankin Inlet area can be found in Carder (1993); Carder and Peet (1983); Carder and Low (1985); Carder and Stewart (1989); MacDonell (1989) and Yonge (1987a,b).

Commercial data from the Coppermine River and Pelly Bay fisheries over the years have been limited. Historical information on quotas and harvest figures from some of these areas can be found in Yaremchuk et al. (1989). Various experimental fisheries have been conducted in the area over the years. This information has been used to determine the feasibility of fishing specific waterbodies for commercial purposes and has also been used to determine various quota allocations. Data collected from these fisheries are found in Kroeker (1985); McGowan (1985, 1989) and Kristofferson and McGowan (1981). Additional information from the Coppermine area can be found in Gillman and Kristofferson (1984) and from the Pelly Bay area in Kristofferson et al. (1982).

An experimental fishery took place in the Chesterfield Inlet area in 1993 and 1994. The objective was to determine the feasibility of a mixed-stock fishery to overcome severe economic constraints. A zonal quota system, including open water commercial fishing zones and subsistence fishing zones was devised at a community workshop. These zones replaced the regular Schedule V fisheries (Northwest Territories Fishery Regulations 1993) (A. Kristofferson - personal communication). The fishing zones used for commercial and subsistence fishing changed during the years 1993 and 1994 (Fig. 4,5) (D. Pike - personal communication).

With the exception of two fisheries, gill nets with a minimum mesh size of 139 mm (stretched measure) were used throughout. During 1994 a weir was used to catch charr at Halovik and Jayco rivers. Ekalluk River was fished by gill net and by weir in 1994. Biological samples from the commercial fishery at Ekalluk River were obtained from the weir. Fishing locations are found in Fig. 1-7.

SAMPLING PROGRAM

Sampling methods are described in Kristofferson and Carder (1980) and Carder and Peet (1983). Fish were sampled over various periods during 1993 and 1994 (Table 1).

Fish were randomly sampled for fork length (±1 mm) and dressed and round weight (±50 g). Sagittal otoliths were taken and stored dry in coin envelopes. In the laboratory they were ground on a fine carborundum and placed in benzyl benzoate for clearing before being read under a binocular dissecting microscope (30X). A reflecting light source against a black background was used to highlight the annual growth zones which were counted to determine the age. Method of ageing was according to Nordeng (1961).

DATA ANALYSIS

Data were analyzed using a Micro Vax 3100 computer. The Statistical Analysis System (1993) was used to generate length, weight, age, sex and stage of maturity summaries and to perform basic calculation and statistical analysis.

Relative condition factor (K) was calculated using the formula:

$$K = \frac{W \times 10^5}{L^3}$$

where W = round weight in grams
L = fork length in centimetres

RESULTS

Quotas and harvest data are shown in Table 2. A summary of length, weight and age data from all commercial fisheries sampled during 1993 and 1994 are presented in Table 3. Biological data are presented in Tables 4 to 54. All tables of length data designate the lower boundary of the length interval (e.g. 450 indicates length interval 450-499 mm).

ACKNOWLEDGMENTS

The author wishes to thank the commercial fishermen of Cambridge Bay , Coppermine, Chesterfield Inlet, Rankin Inlet, Whale Cove, Arviat and Pelly Bay for their help and co-operation. Thanks also to the staff of Ikaluktutiak Cooperative Ltd, Cambridge Bay, and Issatik Food Plant, Rankin Inlet, for their help and assistance.

Field assistance at Cambridge Bay was provided by Robert Luke , F. Taptuna, and P. Taylor (DFO); at Coppermine by C. Adjun (GNWT); at Chesterfield Inlet by P. Autut; at Rankin Inlet by K. Aglukark, K. Seto (DFO), and M. Schindel; at Whale Cove by R. Alikashuak; at Arviat by E. Arnalak and at Pelly Bay by G. Kakkianiun and T. Kakkianiun.

Thanks also to G. Low, NWT West Area Management Biologist, DFO, and D. Pike, Nunavut Area Management Biologist, DFO, for their help and support. A.H. Kristofferson provided scientific advice and reviewed the final draft. N. Nagarajah assisted in the preparation of tables in this report. Word processing and typing was done by B. Hyman and K. DeCaigny.

REFERENCES

BARLISHEN, W.J., and T.N. WEBBER. 1973. A history of the development of commercial fishing in the Cambridge Bay area of the Northwest Territories. Unpublished report for the Federal-Territorial Task Force Report on Fisheries Development in the Northwest Territories. 37 p. (copy in the Freshwater Institute library)

CARDER, G.W. 1981. Data from the commercial fishery for Arctic charr, *Salvelinus alpinus* (Linnaeus), in the Cambridge Bay area, Northwest Territories, 1979-80. Can. Data Rep. Fish. Aquat. Sci. 284: v + 22 p.

CARDER, G.W. 1983. Data from the commercial fishery for Arctic charr, *Salvelinus alpinus* (Linnaeus), in the Cambridge Bay and Rankin Inlet areas, Northwest Territories, 1981-82. Can. Data Rep. Fish. Aquat. Sci. 391: v + 24 p.

CARDER, G.W. 1988. Data from the commercial fishery for Arctic charr, *Salvelinus alpinus* (L.), in the Northwest Territories, 1985-86. Can. Data Rep. Fish. Aquat. Sci. 681: v + 35 p.

CARDER, G.W. 1991. Data from the commercial fishery for Arctic charr, *Salvelinus alpinus* (L.), in the Cambridge Bay, District of Keewatin and Igloolik areas, Northwest Territories, 1989-1990. Can. Data Rep. Fish. Aquat. Sci. 848: vi + 40 p.

CARDER, G.W. 1993. Data from various commercial fisheries for Arctic charr, *Salvelinus alpinus* (L.), in the Nunavut Settlement Area, Northwest Territories, 1989, 1991 and 1992. Can. Data Rep. Fish. Aquat. Sci. 910: vi + 38 p.

CARDER, G.W., and G. LOW. 1985. Data from the commercial fishery for Arctic charr, *Salvelinus alpinus* (Linnaeus), in the Cambridge Bay and Rankin Inlet areas, Northwest Territories, 1983-84. Can. Data Rep. Fish. Aquat. Sci. 519: v + 26 p.

CARDER, G.W., and R.F. PEET. 1983. Data from the commercial fishery for Arctic char, *Salvelinus alpinus* (Linnaeus), in the district of Keewatin, Northwest Territories, 1973-1981. Can. Data Rep. Fish. Aquat. Sci. 357: vii + 65 p.

CARDER, G.W., and D. B. STEWART. 1989. Data from the commercial fishery for Arctic charr, *Salvelinus alpinus* (L.), in the central and Keewatin regions of the Northwest Territories, 1987-88. Can. Data Rep. Fish. Aquat. Sci. 766: vi + 47 p.

GILLMAN, D.V., and A.H. KRISTOFFERSON. 1984. Biological data on Arctic charr, *Salvelinus alpinus* (L.), from the Coppermine River, Northwest Territories, 1981-82. Can. Data Rep. Fish. Aquat. Sci. 440: iv + 16 p.

KRISTOFFERSON, A. H., and G.W. CARDER. 1980. Data from the commercial fishery for Arctic charr, *Salvelinus alpinus* (Linnaeus), in the Cambridge Bay area, Northwest Territories, 1971-78. Can. Data Rep. Fish. Aquat. Sci. 184: v + 25 p.

KRISTOFFERSON, A.H., and D.K. McGOWAN. 1981. Data on Arctic charr, *Salvelinus alpinus* (Linnaeus), collected from test fisheries in the Baffin Region, Northwest Territories, 1975-1979. Can. Data Rep. Fish. Aquat. Sci. 255: vi + 43 p.

KRISTOFFERSON, A.H., D.R. LEROUX, and J.R. ORR. 1982. A biological assessment of Arctic char, *Salvelinus alpinus* (L.), stocks in the Gjoa Haven-Pelly Bay area of the Northwest Territories, 1979-80. Can. Manuscr. Rep. Fish. Aquat. Sci. 1591: vi + 51 p.

KROEKER, K. 1985. Steensby Inlet test fishery 1985 final report. North/South Consultants Inc. Winnipeg, MB., for Department of Fisheries and Oceans. viii + 94 p. (copy in the Freshwater Institute Library)

McGOWAN, D.K. 1985. Data from test fisheries conducted in the Baffin and Central Arctic Regions, Northwest Territories, 1980-84. Can. Data Rep. Fish. Aquat. Sci. 531: v + 68 p.

McGOWAN, D.K. 1989. Data from test fisheries conducted in the Northwest Territories, 1985-88. Can. Data Rep. Fish. Aquat. Sci. 756: vi + 121 p.

MACDONELL, D.S. 1989. Report on the 1989 tagging and sampling program for Arctic char near Arviat and the Maguse rivers, N.W.T. North/South Consultants Inc. Winnipeg, MB., for Department of Fisheries and Oceans. vi + 62 p. (copy in the Freshwater Institute Library)

NORDENG, H. 1961. On the biology of charr (*Salmo alpinus* L.) in Salangen, North Norway. I., Age and spawning frequency determined from scales and otoliths. Nytt Mag. for Zool. 10: 68-123.

NORTHWEST TERRITORIES FISHERY REGULATIONS. 1993. Schedule V, DFO, Ottawa, ON. p. 16-20 to 16-57.

SAS INSTITUTE INC. SAS Language: Reference, Version 6, First Edition. Cary, NC. SAS Institute Inc., 1990. 1042 p.

YAREMCHUK, G.C.B., M.M. ROBERGE, D.K. McGOWAN, G.W. CARDER, B. WONG, and C.J. READ. 1989. Commercial harvests of major fish species from the Northwest Territories, 1945 to 1987. Can. Data Rep. Fish. Aquat. Sci. 751: iv + 129 p.

YONGE, L. 1987a. Analysis of the economic performance of the commercial fishery at Eskimo Point, NWT, summer season 1987. Report prepared for the Department of Economic Development and Tourism, Government of the Northwest Territories. 13 p. (copy in the Freshwater Institute Library)

YONGE, L. 1987b. An economic analysis of the 1987 Whale Cove commercial char fishery. Report prepared for the Department of Economic Development and Tourism, Government of the Northwest Territories. 35 p. (copy in the Freshwater Institute Library)

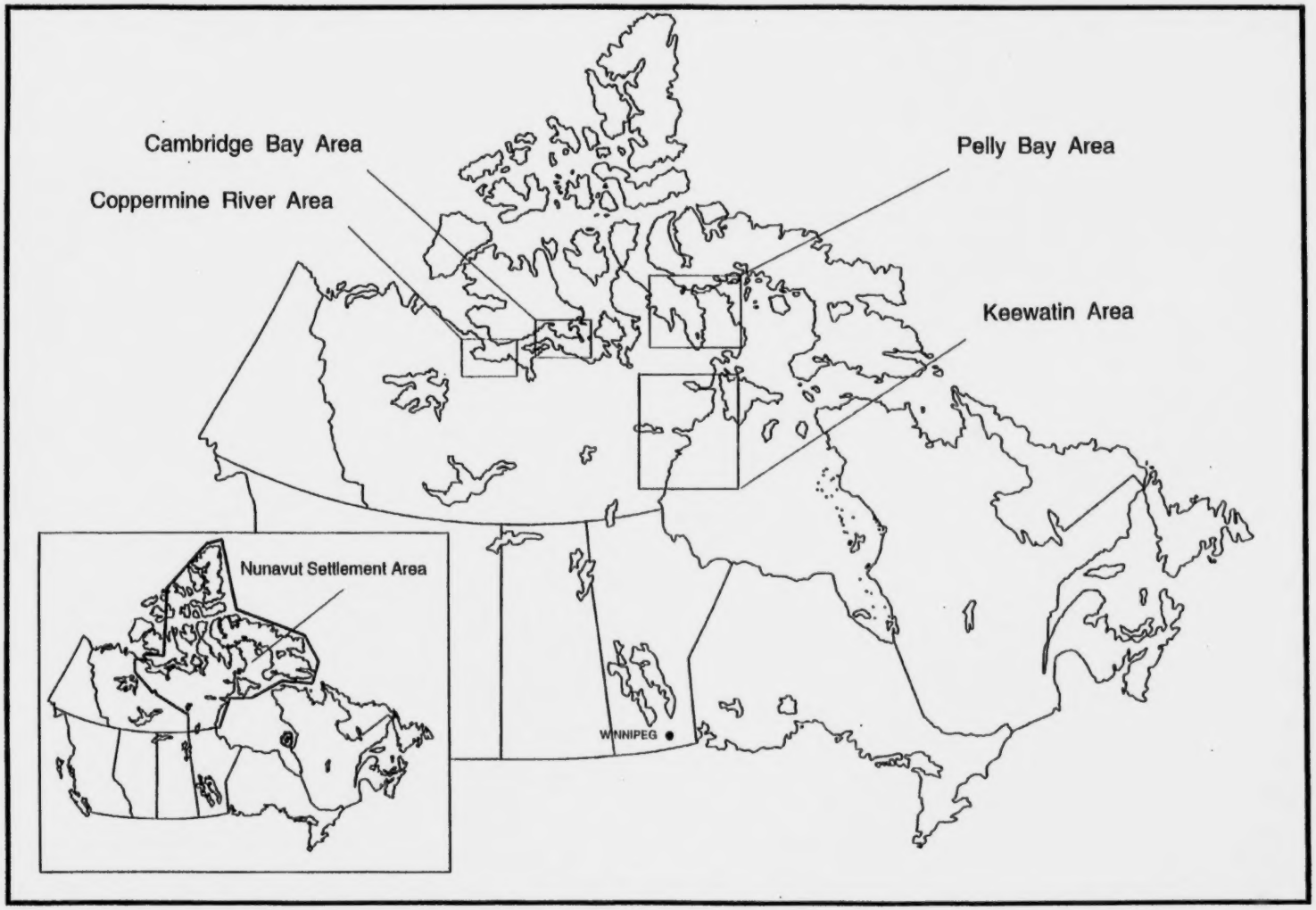

Fig. 1. Map of Canada showing commercial fishing areas for anadromous Arctic charr referred to in this report.

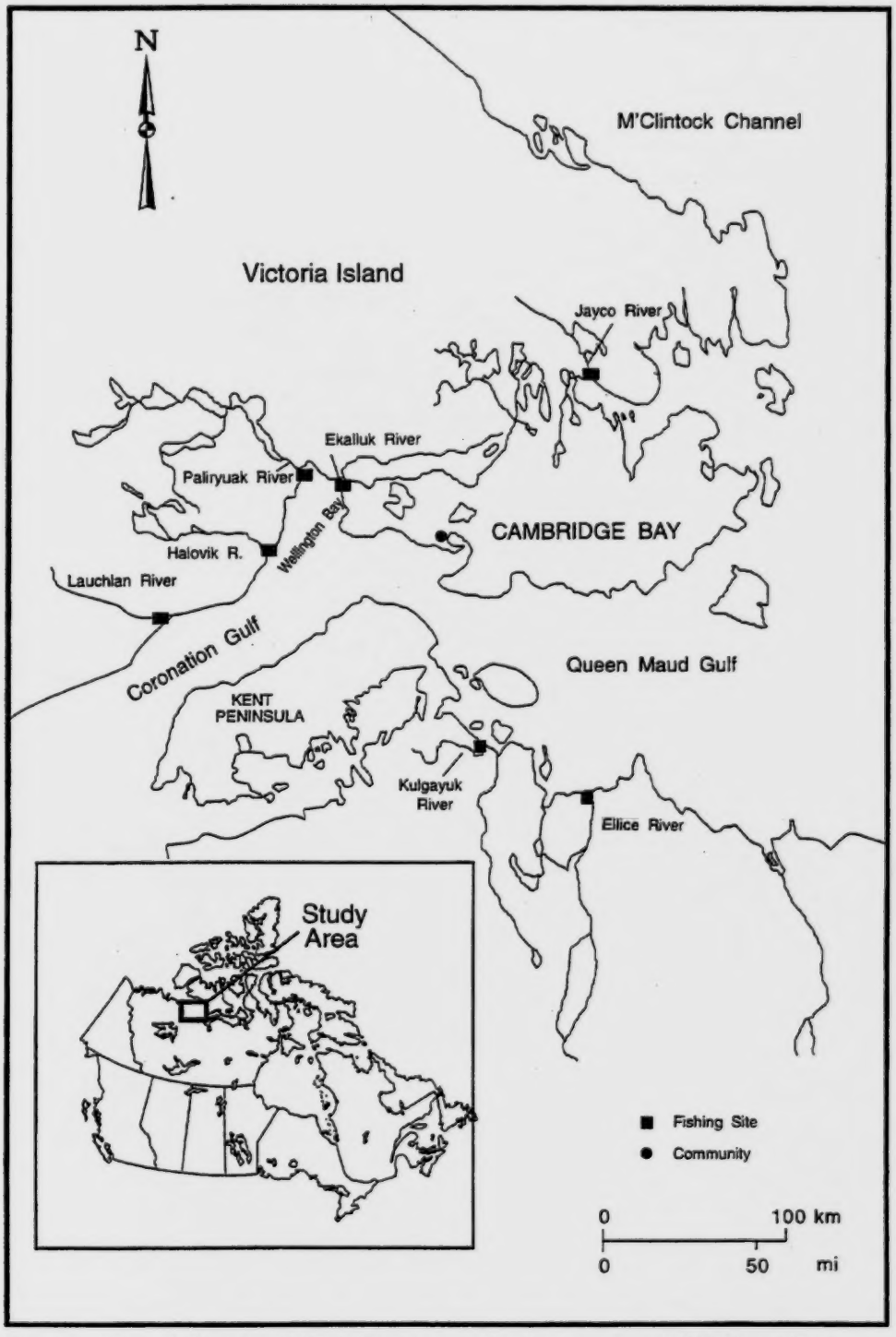

Fig. 2. Map of the Cambridge Bay area showing commercial fishing sites.

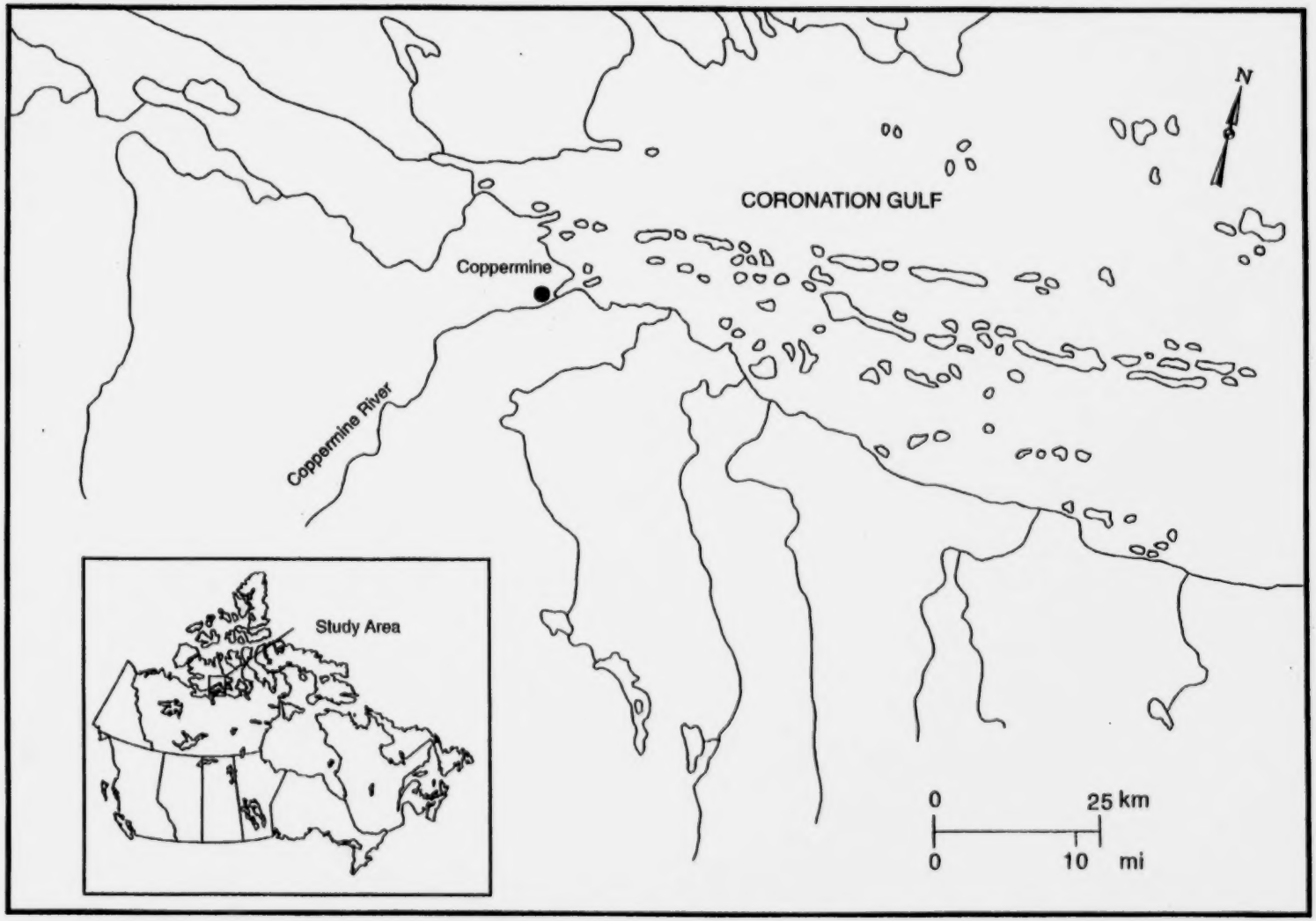

Fig. 3. Map of the Coppermine area showing Coppermine River.

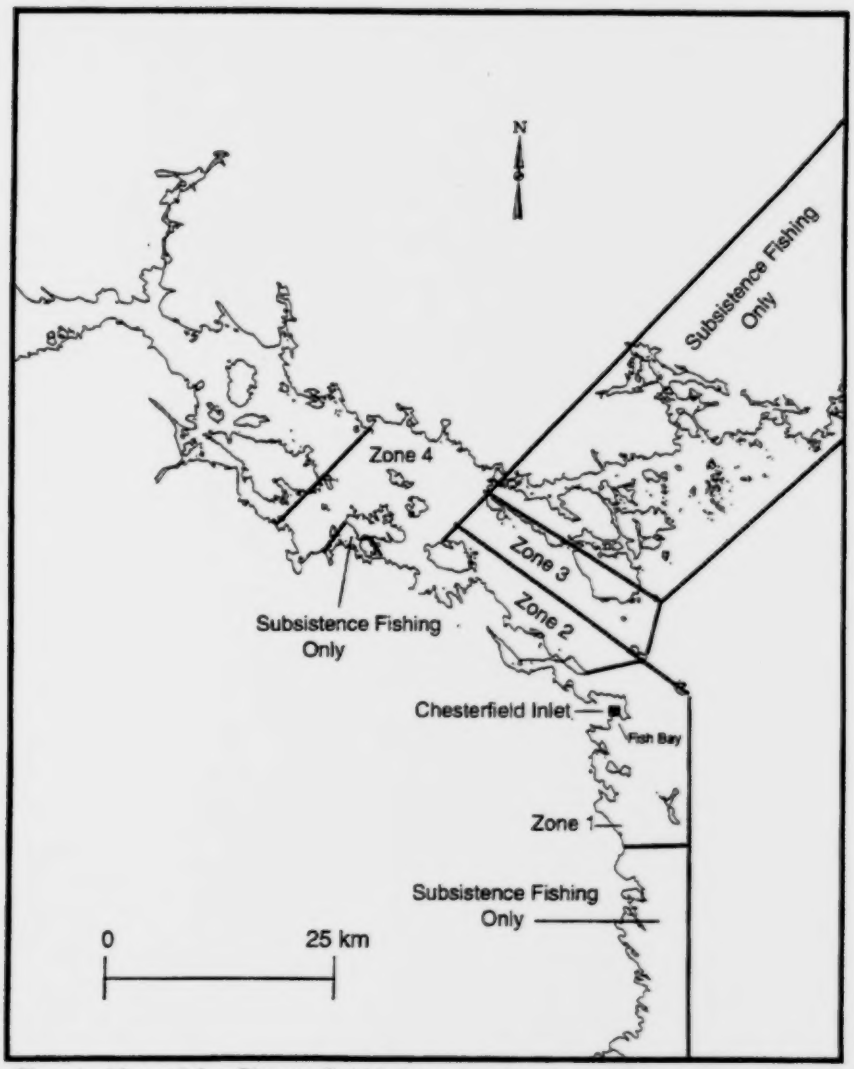

Fig. 4. Map of the Chesterfield Inlet area showing 1993 commercial and subsistence fishing zones.

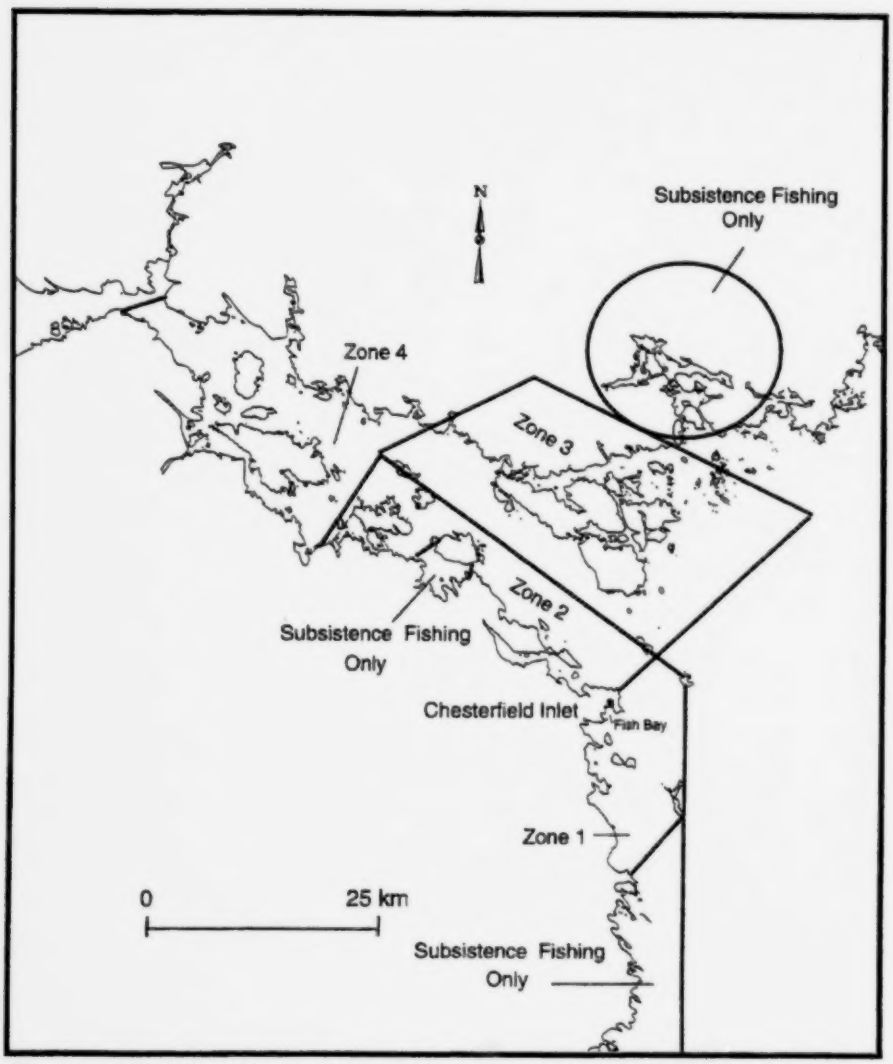

Fig. 5. Map of the Chesterfield Inlet area showing 1994 commercial and subsistence fishing zones.

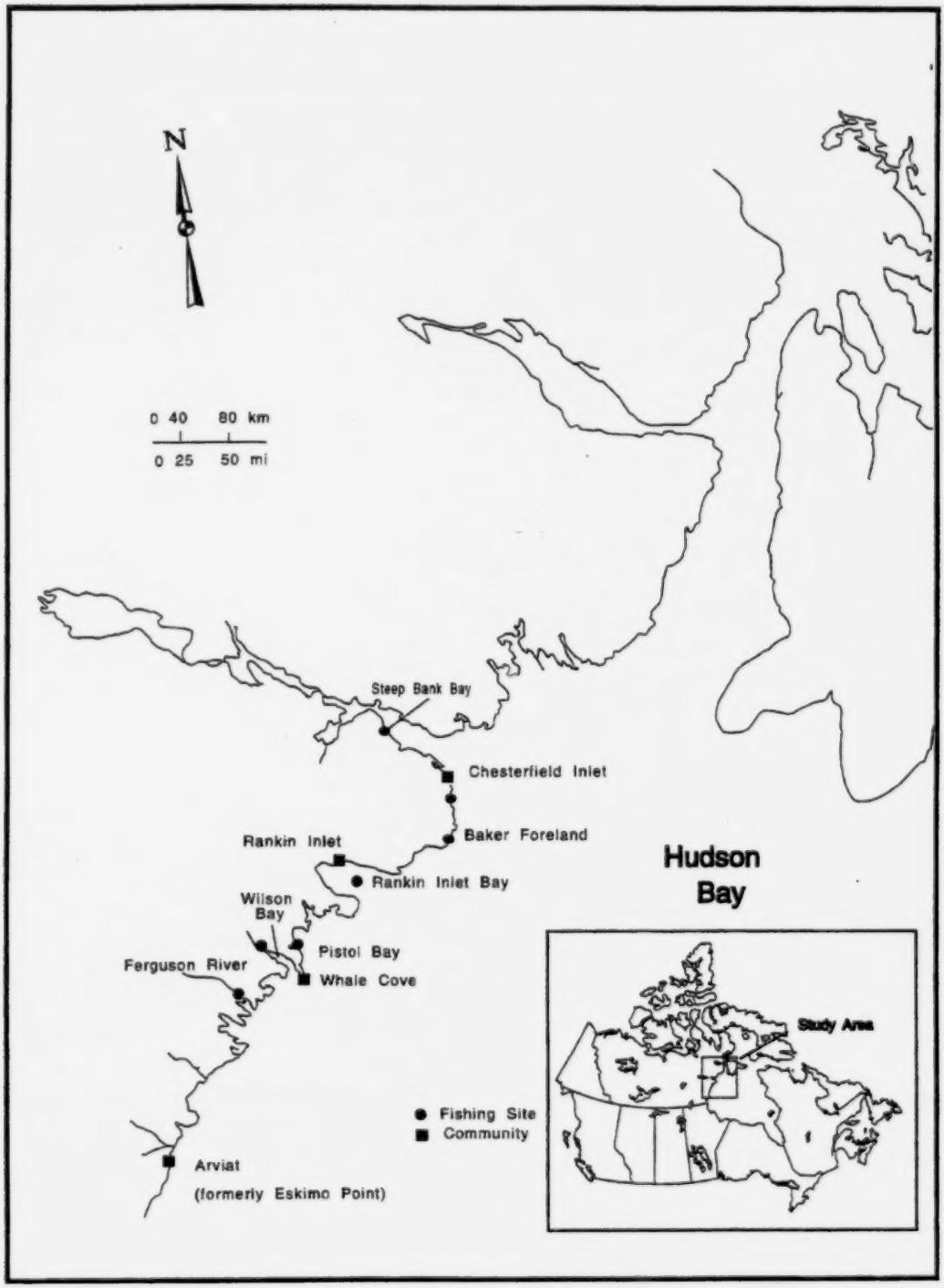

Fig. 6. Map of the District of Keewatin showing commercial fishing sites.

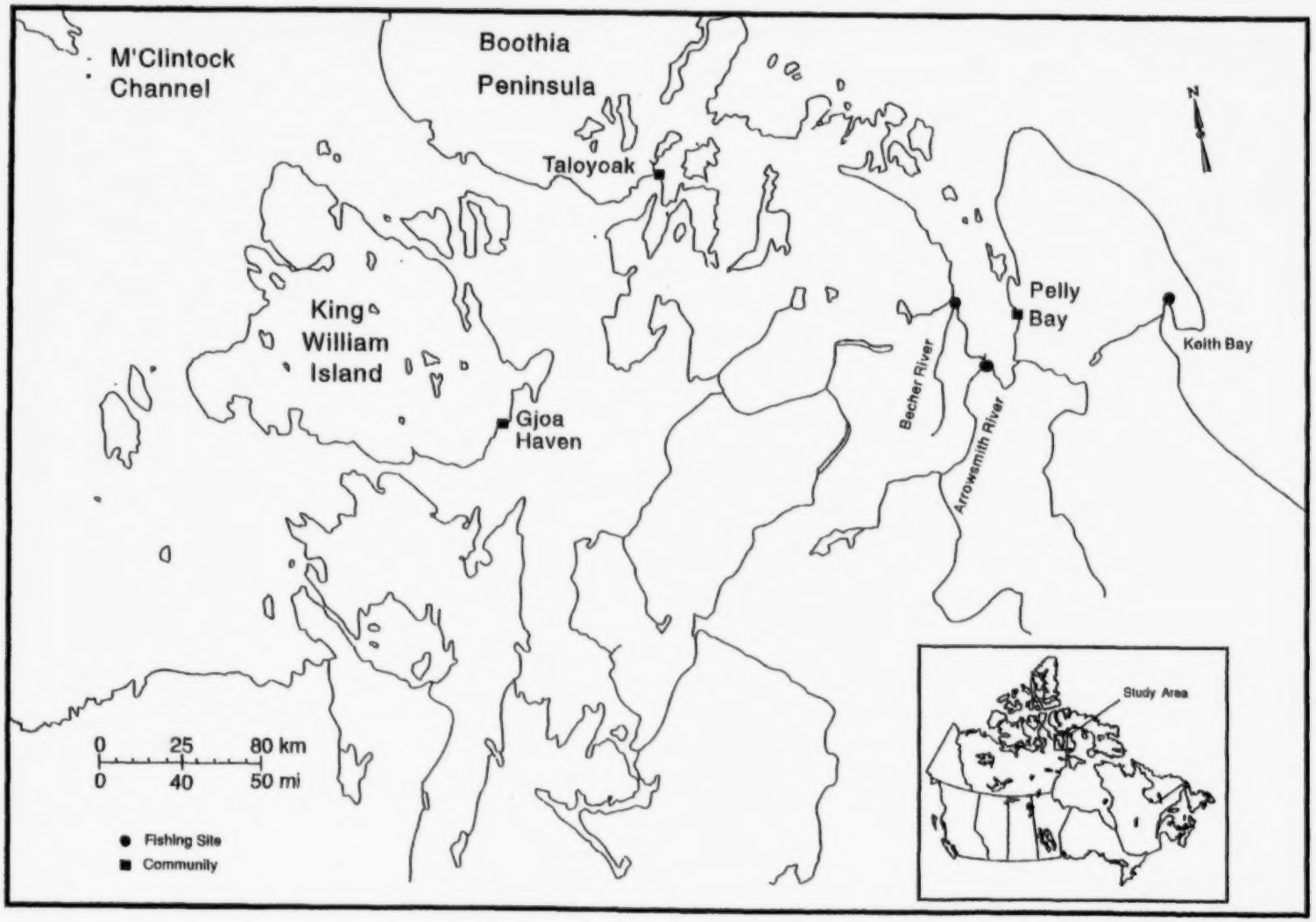

Fig. 7. Map of the Pelly Bay area showing commercial fishing sites.

Table 1. Sampling dates during the years 1993 and 1994.

Area	1993	1994
Cambridge Bay Area		
Ekalluk River	Aug. 26 - Aug. 29	Aug. 27
Paliryuak River	July 07 - July 11	
Halovik River	July 12 - July 17	Aug. 28 - Sept. 05
Lauchlan River	July 11 - July 13	
Jayco River	Aug. 31 - Sept. 08	Aug. 31 - Sept. 08
Kulgayuk River	Aug. 21 - Aug. 31	
Ellice River	Aug. 20 - Aug. 26	Aug. 21 - Aug. 27
Coppermine Area		
Coppermine River	Sept. 22	Nov. 03 - Nov. 09
Keewatin Area		
Steep Bank Bay		Aug. 10
Chesterfield Inlet, Zone 2		Aug. 14 - Aug. 16
Chesterfield Inlet, Zone 3		Aug. 14 - Sept. 05
Fish Bay (Chesterfield Inlet)	July 26 - Aug. 13	
Rankin Inlet	July 27 - July 30	
Baker Foreland	July 31 - Aug. 07	
Ferguson River	Aug. 15	Aug. 07 - Aug. 15
Pistol Bay	July 25 - Aug. 15	
Wilson Bay		July 24 - Aug. 12
Pelly Bay Area		
Arrowsmith River	Oct. 23	
Becher River	Oct. 23	
Keith Bay	Oct. 25	

Table 2. Commercial quotas and annual harvest of anadromous Arctic charr by sampled fishery, 1993 and 1994.

Location	Quota (kg) 1993 and 1994	Harvest (kg) 1993	Harvest (kg) 1994
Cambridge Bay Area			
Ekalluk River	7 500 (1993) 20 000 (1994)	1 478[1]	1 640
Paliryuak River (Surrey River)	9 100	6 579	Not fished
Halovik River (30 Mile)	6 800 (1993) 5 000 (1994)	5 939	3 859
Lauchlan River (Byron Bay)	9 100	9 306	Not fished
Jayco River	15 600 (1993) 17 000 (1994)	15 411	16 287
Kulgayuk River	4 000	3 120	Not fished
Ellice River	8 000	8 016	7 175
Coppermine Area			
Coppermine River	600	600	600
Keewatin Area			
Steep Bank Bay	4 500	Nil	Nil
Chesterfield Inlet Zone 2	7 500	60	215
Chesterfield Inlet Zone 3	5 000	323	247
Fish Bay (Chesterfield Inlet)	4 500	3 863	356
Rankin Inlet	4 000	1 801	Closed
Baker Foreland	4 600	2 072	364
Pistol Bay	2 300	493	854
Wilson Bay (summer) (spring)	8 000 2 000	335 not known	1 880 not known
Ferguson River	13 600	621	3 980
Pelly Bay Area			
Arrowsmith River	1 000	277	291
Becher River	600 (1993) 1 000 (1994)	473 not known	391 not known
Keith Bay	4 500	709	693

[1] Round weight in the Cambridge Bay area was calculated using a dressed weight to round weight conversion factor of 1.25 (includes estimate of culls). In all other areas the round weight was calculated using a conversion factor of 1.15 which did not include an estimate of culls.

Dressed weight (viscera and gills removed).

Table 3. Summary of biological data sampled from all commercial fisheries sampled during the years 1993 and 1994.

Location	Year	Sample Size	Mean FL[1] (mm)	Mean DRWT[2] (g)	Mean Age (yr)	Range FL (mm)	Range DRWT (g)	Range Age (yr)
Cambridge Bay Area								
Ekalluk River	1993[3]	130	632	3241 (rd)[4]	12.4	506 - 828	1700 - 6950	9 - 20
	1994[3]	101	624	3478 (rd)	12.4	484 - 865	1600 - 7500	9 - 18
	1994	70	670	3495	13.4	518 - 863	1650 - 6900	10 - 18
Paliryuak River	1993	209	703	3051	13.6	561 - 837	1350 - 4750	9 - 19
Halovik River	1993	210	717	3099	14.1	514 - 860	1465 - 8000	11 - 22
	1994	201	639	3159	12.5	445 - 800	1000 - 6200	8 - 19
Lauchlan River	1993	210	729	3102	13.9	575 - 845	1515 - 4890	9 - 22
Jayco River	1993	210	664	3007	16.5	546 - 792	1520 - 5550	9 - 24
	1994	209	643	2995	14.6	512 - 843	1400 - 7500	9 - 25
Kulgayuk River	1993	210	648	3178	11.5	501 - 826	1600 - 6350	7 - 16
Ellice River	1993	210	631	3096	10.1	514 - 860	1465 - 8000	7 - 15
	1994	225	640	3540	10.3	500 - 884	1500 - 9000	7 - 16
Coppermine Area								
Coppermine River	1993	67	627	2829 (rd)	8.9	500 - 790	1450 - 5000	6 - 15
	1994	70	633	3167 (rd)	9.3	540 - 840	2000 - 7350	7 - 14
Keewatin Area								
Steep Bank Bay	1994	24	584	2071	9.0	477 - 695	1200 - 3600	7 - 12
Chesterfield Inlet, Zone 2	1994	28	570	2245	7.9	512 - 690	1700 - 3700	6 - 9
Chesterfield Inlet, Zone 3	1994	124	593	2215	9.0	433 - 747	900 - 4500	6 - 14
Fish Bay (Chesterfield Inlet)	1994	149	584	2180	8.7	505 - 723	1200 - 4000	6 - 13
Rankin Inlet	1993	112	570	1967	9.0	380 - 735	600 - 4250	5 - 15
Baker Foreland	1993	110	573	2077	8.8	430 - 730	850 - 4050	5 - 14
Ferguson River	1993	35	570	2293	7.6	515 - 660	1750 - 4000	5 - 11
	1994	147	591	2547	7.2	500 - 785	1500 - 5250	5 - 11
Pistol Bay	1994	171	566	2062	7.5	452 - 675	1050 - 3550	5 - 12
Wilson Bay	1994	240	585	2295	7.5	376 -730	500 - 4150	5 - 13
Pelly Bay Area								
Arrowsmith River	1993	100	610	2199	-	520 - 770	1247 - 4649	-
Becher River	1993	100	636	2582	-	530 - 800	1474 - 4876	-
Keith Bay	1993	100	609	2185	-	520 - 820	1474 - 3629	-

[1] FL = fork length.
[2] DRWT = dressed weight (gills and viscera removed).
[3] experimental gill.
[4] rd = round weight (gills and viscera not removed).

Table 4. Age composition of Arctic charr taken by experimental gill net (139 mm) at Ekalluk River, 1993.

AGE	MALES							FEMALES							COMBINED						
		LENGTH (MM)		WEIGHT (G)			%		LENGTH (MM)		WEIGHT (G)			%		LENGTH (MM)		WEIGHT (G)			%
(YR)	N	MEAN	SD	MEAN	SD	K	MAT	N	MEAN	SD	MEAN	SD	K	MAT	N	MEAN	SD	MEAN	SD	K	MAT
9	3	543	26	2033	257	1.27	0	2	540	19	2000	283	1.27	0	5	542	21	2020	231	1.27	0
10	10	547	26	2130	265	1.29	10	9	574	13	2445	272	1.29	0	19	560	24	2279	307	1.29	5
11	17	612	45	2890	615	1.25	29	12	591	39	2684	500	1.29	8	29	603	43	2805	570	1.27	21
12	15	636	59	3288	851	1.26	47	10	596	45	2645	665	1.23	20	25	620	57	3031	832	1.25	36
13	8	668	29	3763	621	1.25	88	4	543	25	1963	144	1.23	0	12	626	67	3163	1018	1.25	58
14	5	710	67	4335	1470	1.17	80	6	697	58	4208	822	1.24	100	11	703	59	4266	1099	1.21	91
15	2	718	32	4600	707	1.24	100	5	696	18	4110	338	1.22	100	7	702	22	4250	465	1.23	100
16	3	754	39	4883	702	1.14	100	4	699	41	3950	534	1.16	100	7	722	47	4350	746	1.15	100
17	1	816	.	6900	.	1.27	100	2	693	74	4150	1556	1.22	50	3	734	89	5067	1932	1.23	67
18	1	828	.	6950	.	1.22	100	1	675	.	3050	.	0.99	100	2	752	108	5000	2758	1.11	100
19	.	.	.	.	.	.	.	1	700	.	3850	.	1.12	100	1	700	.	3850	.	1.12	100
20	.	.	.	.	.	.	.	1	728	.	4050	.	1.05	100	1	728	.	4050	.	1.05	100
TOTAL	65							57							122						
MEAN		635	78	3313	1221	1.25			621	68	3041	936	1.24			628	74	3186	1101	1.24	
MEAN AGE		12.0							12.7							12.4					

Table 5. Length composition of Arctic charr taken by experimental gill net (139 mm) at Ekalluk River, 1993.

LENGTH	MALES						FEMALES						COMBINED					
INTERVAL		LENGTH (MM)	WEIGHT (G)			%		LENGTH (MM)	WEIGHT (G)			%		LENGTH (MM)	WEIGHT (G)			%
(MM)	N	MEAN	MEAN	SD	K	MAT	N	MEAN	MEAN	SD	K	MAT	N	MEAN	MEAN	SD	K	MAT
500	11	530	1927	146	1.29	0	7	535	1971	138	1.29	0	18	532	1944	140	1.29	0
550	12	570	2350	199	1.27	8	21	572	2390	305	1.28	5	33	571	2375	268	1.27	6
600	15	619	2944	323	1.24	27	10	616	2968	377	1.27	40	25	618	2953	338	1.25	32
650	16	671	3844	342	1.27	88	10	673	3680	517	1.20	80	26	672	3781	416	1.24	85
700	6	718	4417	719	1.19	100	12	721	4300	467	1.15	100	18	720	4339	544	1.16	100
750	5	767	5260	321	1.17	100	1	751	5200	-	1.23	100	6	765	5250	288	1.18	100
800	4	814	6544	444	1.21	100	-	-	-	-	-	-	4	814	6544	444	1.21	100
TOTAL	69						61						130					
MEAN		639	3392	1294	1.25			624	3070	938	1.24			632	3241	1148	1.24	

Table 6. Age composition of Arctic charr taken by experimental gill net (139 mm) at Ekalluk River, 1994.

AGE	MALES							FEMALES							COMBINED						
		LENGTH (MM)		WEIGHT (G)			%		LENGTH (MM)		WEIGHT (G)			%		LENGTH (MM)		WEIGHT (G)			%
(YR)	N	MEAN	SD	MEAN	SD	K	MAT	N	MEAN	SD	MEAN	SD	K	MAT	N	MEAN	SD	MEAN	SD	K	MAT
9	1	565	.	2450	.	1.36	0	.	.	.	.	.	.	.	1	565	.	2450	.	1.36	0
10	3	590	9	2750	132	1.34	33	.	.	.	.	.	.	.	3	590	9	2750	132	1.34	33
11	5	598	48	3090	671	1.43	40	4	604	26	3300	520	1.49	75	9	600	37	3183	582	1.46	56
12	11	616	34	3268	604	1.38	64	6	609	40	3183	708	1.39	50	17	614	35	3238	622	1.38	59
13	6	657	52	4150	974	1.45	83	2	596	8	2950	495	1.39	100	8	641	52	3850	1011	1.43	88
14	2	714	62	5225	1732	1.41	100	3	694	28	4600	409	1.38	100	5	702	38	4850	975	1.39	100
15	2	833	45	7400	141	1.29	100	2	684	31	4800	707	1.49	100	4	759	92	6100	1558	1.39	100
16	1	686	.	4600	.	1.42	100	.	.	.	.	.	.	.	1	686	.	4600	.	1.42	100
18	1	701	.	3850	.	1.12	100	.	.	.	.	.	.	.	1	701	.	3850	.	1.12	100
TOTAL	32							17							49						
MEAN		641	72	3772	1336	1.39			630	49	3624	884	1.42			637	65	3720	1191	1.40	
MEAN AGE		12.4							12.6							12.4					

Table 7. Length composition of Arctic charr taken by experimental gill net (139 mm) at Ekalluk River, 1994.

LENGTH	MALES						FEMALES						COMBINED					
INTERVAL		LENGTH (MM)	WEIGHT (G)			%		LENGTH (MM)	WEIGHT (G)			%		LENGTH (MM)	WEIGHT (G)			%
(MM)	N	MEAN	MEAN	SD	K	MAT	N	MEAN	MEAN	SD	K	MAT	N	MEAN	MEAN	SD	K	MAT
450	-	-	-	-	-	-	-	-	-	-	-	-	1	484	1600	-	1.41	0
500	1	542	2450	-	1.54	0	1	540	2050	-	1.30	0	8	532	2131	243	1.42	0
550	9	580	2672	262	1.37	33	4	587	2825	253	1.40	50	27	578	2665	238	1.38	19
600	10	620	3325	323	1.39	60	8	623	3531	340	1.46	88	34	620	3356	293	1.41	38
650	6	669	4242	246	1.42	100	4	679	4475	272	1.43	100	20	672	4258	411	1.40	50
700	3	709	4750	781	1.33	100	2	715	5175	177	1.42	100	7	712	4879	545	1.35	71
750	1	758	6450	-	1.48	100	-	-	-	-	-	-	2	758	6225	318	1.43	50
800	1	801	7300	-	1.42	100	-	-	-	-	-	-	1	801	7300	-	1.42	100
850	1	865	7500	-	1.16	100	-	-	-	-	-	-	1	865	7500	-	1.16	100
TOTAL	32						19						101					
MEAN		641	3772	1336	1.39			632	3676	882	1.43			624	3478	1086	1.39	

Table 8. Age composition of Arctic charr taken by the commercial fishery at Ekalluk River, 1994.

AGE			FORK LENGTH(MM)		DRESSED WEIGHT(G)	
(YR)	NO.	PERCENT	MEAN	SD	MEAN	SD
10	5	8	576	20	2130	157
11	9	15	590	35	2411	520
12	9	15	605	67	2794	1006
13	12	20	672	69	3533	1122
14	7	12	716	70	3879	1149
15	6	10	743	60	4450	1322
16	4	7	779	56	4838	1088
17	5	8	717	68	4390	934
18	3	5	836	29	6167	637
TOTAL	60					
MEAN			673	93	3559	1377
MEAN AGE	13.4					

Table 9. Length composition of Arctic charr taken by the commercial fishery at Ekalluk River, 1994.

LENGTH INTERVAL			MEAN FORK	DRESSED WEIGHT(G)	
(MM)	NO.	PERCENT	LENGTH(MM)	MEAN	SD
500	4	6	534	1925	393
550	14	20	575	2175	153
600	14	20	622	2829	366
650	10	14	665	3670	358
700	13	19	728	4046	1000
750	8	11	766	4613	1136
800	6	9	821	5808	733
850	1	1	863	5850	.
TOTAL	70				
MEAN			670	3495	1317

Table 10. Age composition of Arctic charr taken by the commercial fishery at Paliryuak River, 1993.

AGE			FORK LENGTH(MM)		DRESSED WEIGHT(G)	
(YR)	NO.	PERCENT	MEAN	SD	MEAN	SD
9	1	1	642	-	2025	-
10	8	5	687	56	2899	629
11	13	9	642	42	2475	525
12	27	18	677	43	2809	588
13	27	18	688	40	2895	492
14	25	16	718	47	3151	616
15	23	15	716	51	3242	726
16	17	11	729	47	3249	527
17	9	6	718	54	3257	783
19	2	1	814	33	4445	339
TOTAL	152					
MEAN			699	53	3014	657
MEAN AGE	13.6					

Table 11. Length composition of Arctic charr taken by the commercial fishery at Paliryuak River, 1993.

LENGTH INTERVAL			MEAN FORK	DRESSED WEIGHT(G)	
(MM)	NO.	PERCENT	LENGTH(MM)	MEAN	SD
550	3	1	570	1617	281
600	26	12	633	2279	248
650	73	35	673	2713	351
700	68	33	722	3277	390
750	30	14	776	3834	452
800	9	4	813	4173	433
TOTAL	209				
MEAN			703	3051	663

Table 12. Age composition of Arctic charr taken by the commercial fishery at Halovik River, 1993.

AGE			FORK LENGTH(MM)		DRESSED WEIGHT(G)	
(YR)	NO.	PERCENT	MEAN	SD	MEAN	SD
11	6	4	665	41	2483	422
12	30	20	669	45	2608	482
13	30	20	704	44	3003	574
14	27	18	724	44	3294	570
15	23	15	734	51	3515	1293
16	18	12	745	46	3525	621
17	9	6	749	38	3616	515
18	3	2	705	18	2608	122
19	2	1	803	10	4005	827
20	1	1	815	-	3950	-
21	1	1	750	-	3225	-
22	1	1	766	-	4120	-
TOTAL	151					
MEAN			714	53	3153	800
MEAN AGE	14.1					

Table 13. Length composition of Arctic charr taken by the commercial fishery at Halovik River, 1993.

LENGTH INTERVAL			MEAN FORK	DRESSED WEIGHT(G)	
(MM)	NO.	PERCENT	LENGTH(MM)	MEAN	SD
550	2	1	591	1835	134
600	23	11	628	2169	271
650	49	23	679	2657	258
700	77	37	723	3190	730
750	49	23	771	3637	414
800	10	5	820	4332	596
TOTAL	210				
MEAN			717	3099	756

Table 14. Age composition of Arctic charr taken by the commercial fishery at Halovik River, 1994.

AGE			FORK LENGTH(MM)		DRESSED WEIGHT(G)	
(YR)	NO.	PERCENT	MEAN	SD	MEAN	SD
8	2	1	481	30	1300	283
9	1	1	501	-	1400	-
10	9	6	559	51	2122	549
11	39	26	596	50	2632	698
12	40	27	620	42	2815	642
13	22	15	668	73	3542	1330
14	14	9	709	61	4121	966
15	8	5	734	29	4444	491
16	6	4	716	62	4233	705
17	4	3	756	30	4925	473
18	2	1	753	7	4175	530
19	1	1	761	-	5200	-
TOTAL	148					
MEAN			639	77	3163	1112
MEAN AGE	12.5					

Table 15. Length composition of Arctic charr taken by the commercial fishery at Halovik River, 1994.

LENGTH INTERVAL			MEAN FORK	DRESSED WEIGHT(G)	
(MM)	NO.	PERCENT	LENGTH(MM)	MEAN	SD
400	1	0	445	1000	.
450	3	1	476	1267	208
500	17	8	524	1786	372
550	46	23	576	2259	268
600	43	21	626	2923	336
650	46	23	668	3493	413
700	21	10	721	4290	558
750	23	11	768	4922	617
800	1	0	800	6200	.
TOTAL	201				
MEAN			639	3159	1078

Table 16. Age composition of Arctic charr taken by the commercial fishery at Lauchlan River, 1993.

AGE			FORK LENGTH(MM)		DRESSED WEIGHT(G)	
(YR)	NO.	PERCENT	MEAN	SD	MEAN	SD
9	1	1	656	-	2560	-
10	3	2	655	71	2240	715
11	15	9	680	54	2540	423
12	30	18	697	55	2874	581
13	31	18	712	46	2968	468
14	24	14	727	45	3171	575
15	30	18	751	43	3394	696
16	19	11	766	32	3495	650
17	10	6	778	41	3544	815
18	4	2	781	15	3228	446
19	2	1	788	32	3410	672
20	1	1	705	-	2840	-
22	1	1	734	-	2630	-
TOTAL	171					
MEAN			726	55	3103	658
MEAN AGE	13.9					

Table 17. Length composition of Arctic charr taken by the commercial fishery at Lauchlan River, 1993.

LENGTH INTERVAL			MEAN FORK	DRESSED WEIGHT(G)	
(MM)	NO.	PERCENT	LENGTH(MM)	MEAN	SD
550	2	1	583	2258	1050
600	17	8	632	2203	179
650	36	17	676	2633	303
700	75	36	725	3050	365
750	61	29	770	3466	501
800	19	9	816	3922	629
TOTAL	210				
MEAN			729	3102	622

Table 18. Age composition of Arctic charr taken by the commercial fishery at Jayco River, 1993.

AGE			FORK LENGTH(MM)		DRESSED WEIGHT(G)	
(YR)	NO.	PERCENT	MEAN	SD	MEAN	SD
9	2	1	605	74	2500	849
10	1	1	594	-	2200	-
11	2	1	584	41	1975	177
12	5	3	606	48	2318	288
13	8	5	652	31	2741	347
14	10	7	622	42	2641	411
15	25	16	660	46	3004	873
16	27	18	660	45	3044	659
17	19	13	678	56	3409	873
18	22	14	661	55	3040	706
19	11	7	688	37	3296	622
20	9	6	667	48	2818	455
21	6	4	699	57	3587	1045
22	2	1	695	66	3475	389
23	2	1	658	33	3100	283
24	1	1	742	-	3900	-
TOTAL	152					
MEAN			660	51	3028	744
MEAN AGE	16.5					

Table 19. Length composition of Arctic charr taken by the commercial fishery at Jayco River, 1993.

LENGTH INTERVAL			MEAN FORK	DRESSED WEIGHT(G)	
(MM)	NO.	PERCENT	LENGTH(MM)	MEAN	SD
500	1	0	546	1520	.
550	21	10	585	2120	160
600	54	26	626	2586	300
650	89	42	674	3059	337
700	37	18	721	3686	507
750	8	4	767	4640	613
TOTAL	210				
MEAN			664	3007	671

Table 20. Age composition of Arctic charr taken by the commercial fishery at Jayco River, 1994.

AGE			FORK LENGTH(MM)		DRESSED WEIGHT(G)	
(YR)	NO.	PERCENT	MEAN	SD	MEAN	SD
9	3	2	532	22	1817	247
10	2	1	561	6	2050	-
11	18	13	578	39	2208	444
12	23	16	593	40	2363	516
13	13	9	610	31	2485	380
14	12	8	623	57	2900	941
15	12	8	642	68	3029	1196
16	21	15	667	53	3210	828
17	17	12	680	60	3568	871
18	14	10	672	56	3268	912
19	1	1	696	-	3100	-
20	5	3	707	55	3860	1179
21	1	1	595	-	2200	-
23	1	1	834	-	7500	-
25	1	1	768	-	4600	-
TOTAL	144					
MEAN			634	67	2900	997
MEAN AGE	14.6					

Table 21. Length composition of Arctic charr taken by the commercial fishery at Jayco River, 1994.

LENGTH INTERVAL			MEAN FORK	DRESSED WEIGHT(G)	
(MM)	NO.	PERCENT	LENGTH(MM)	MEAN	SD
500	22	11	534	1698	143
550	31	15	579	2200	148
600	62	30	621	2635	300
650	52	25	673	3334	338
700	26	12	720	3977	502
750	13	6	764	4704	643
800	3	1	826	6350	996
TOTAL	209				
MEAN			643	2995	963

Table 22. Age composition of Arctic charr taken by the commercial fishery at Kulgayuk River, 1993.

AGE			FORK LENGTH(MM)		DRESSED WEIGHT(G)	
(YR)	NO.	PERCENT	MEAN	SD	MEAN	SD
7	2	1	525	9	1800	141
8	9	5	546	32	1924	360
9	20	11	586	43	2475	663
10	32	17	624	45	2895	722
11	25	13	633	43	2966	621
12	32	17	661	45	3274	745
13	34	18	686	41	3702	751
14	22	12	678	54	3477	906
15	9	5	703	37	3910	687
16	1	1	628	-	2800	-
TOTAL	186					
MEAN			644	60	3131	868
MEAN AGE	11.5					

Table 23. Length composition of Arctic charr taken by the commercial fishery at Kulgayuk River, 1993.

LENGTH INTERVAL			MEAN FORK	DRESSED WEIGHT(G)	
(MM)	NO.	PERCENT	LENGTH(MM)	MEAN	SD
500	18	9	534	1834	134
550	29	14	579	2275	273
600	53	25	626	2804	381
650	69	33	673	3467	423
700	31	15	722	4194	431
750	9	4	770	4902	612
800	1	0	826	6350	.
TOTAL	210				
MEAN			648	3178	899

Table 24. Age composition of Arctic charr taken by the commercial fishery at Ellice River, 1993.

AGE			FORK LENGTH(MM)		DRESSED WEIGHT(G)	
(YR)	NO.	PERCENT	MEAN	SD	MEAN	SD
7	3	2	564	19	2083	271
8	32	16	572	29	2268	371
9	40	20	596	40	2551	459
10	47	24	637	51	3089	724
11	40	20	655	60	3506	909
12	25	13	658	77	3491	1013
13	5	3	753	41	5074	955
14	4	2	729	24	4794	1321
15	1	1	769	-	5020	-
TOTAL	197					
MEAN			629	66	3062	970
MEAN AGE	10.1					

Table 25. Length composition of Arctic charr taken by the commercial fishery at Ellice River 1993.

LENGTH INTERVAL			MEAN FORK	DRESSED WEIGHT(G)	
(MM)	NO.	PERCENT	LENGTH(MM)	MEAN	SD
500	19	9	532	1944	226
550	65	31	575	2279	219
600	46	22	626	2935	245
650	45	21	672	3578	375
700	22	10	719	4532	598
750	10	5	770	5119	569
800	2	1	804	5035	14
850	1	0	860	8000	.
TOTAL	210				
MEAN			631	3096	1029

Table 26. Age composition of Arctic charr taken by the commercial fishery at Ellice River, 1994.

AGE			FORK LENGTH(MM)		DRESSED WEIGHT(G)	
(YR)	NO.	PERCENT	MEAN	SD	MEAN	SD
7	2	1	578	110	2825	1803
8	21	12	571	34	2457	447
9	54	30	606	49	2981	818
10	33	19	617	32	2985	568
11	26	15	649	57	3729	1069
12	18	10	653	57	3728	939
13	9	5	744	57	5233	1094
14	7	4	767	59	5850	1763
15	7	4	765	35	6050	1074
16	1	1	815	-	6150	-
TOTAL	178					
MEAN			636	72	3468	1300
MEAN AGE	10.3					

Table 27. Length composition of Arctic charr taken by the commercial fishery at Ellice River 1994.

LENGTH INTERVAL			MEAN FORK	DRESSED WEIGHT(G)	
(MM)	NO.	PERCENT	LENGTH(MM)	MEAN	SD
500	18	8	528	1906	193
550	50	22	576	2516	266
600	71	32	621	3070	381
650	41	18	676	4104	739
700	23	10	720	4857	434
750	15	7	771	5880	686
800	6	3	811	6892	1018
850	1	0	884	9000	.
TOTAL	225				
MEAN			640	3540	1337

Table 28. Age composition of Arctic charr taken by the commercial fishery at Coppermine River, 1993.

AGE	MALES							FEMALES							COMBINED					
		LENGTH (MM)		WEIGHT (G)		%			LENGTH (MM)		WEIGHT (G)		%			LENGTH (MM)		WEIGHT (G)		%
(YR)	N	MEAN	SD	MEAN	SD	K	MAT	N	MEAN	SD	MEAN	SD	K	MAT	N	MEAN	SD	MEAN	SD	K	MAT
6	2	595	21	2300	141	1.09	0	1	600	.	2700	.	1.25	100	3	597	15	2433	252	1.14	33
7	9	606	46	2567	578	1.14	56	1	560	.	1950	.	1.11	0	10	601	46	2505	579	1.13	50
8	10	612	32	2596	617	1.12	30	7	584	15	2336	221	1.18	14	17	600	29	2489	500	1.14	24
9	7	641	45	2893	587	1.09	71	6	630	25	2767	288	1.11	67	13	636	36	2835	459	1.10	69
10	1	640	.	3000	.	1.14	100	1	565	.	2100	.	1.16	0	2	603	53	2550	636	1.15	50
11	.	.	.	.	.	.	.	2	705	21	3750	71	1.07	100	2	705	21	3750	71	1.07	100
12	2	720	99	4100	1273	1.09	100	.	.	.	.	.	.	.	2	720	99	4100	273	1.09	100
13	3	698	63	3767	929	1.09	100	2	738	11	4250	71	1.06	100	5	714	50	3960	709	1.08	100
15	1	580	.	2050	.	1.05	100	.	.	.	.	.	.	.	1	580	.	2050	.	1.05	100
TOTAL	35							20							55						
MEAN		629	55	2813	763	1.11			624	58	2785	706	1.13			627	55	2803	736	1.12	
MEAN AGE		8.7							9.1							8.9					

Table 29. Length composition of Arctic charr taken by the commercial fishery at Coppermine River, 1993.

LENGTH INTERVAL	MALES						FEMALES						COMBINED					
		LENGTH (MM)	WEIGHT (G)		%			LENGTH (MM)	WEIGHT (G)		%			LENGTH (MM)	WEIGHT (G)		%	
(MM)	N	MEAN	MEAN	SD	K	MAT	N	MEAN	MEAN	SD	K	MAT	N	MEAN	MEAN	SD	K	MAT
500	1	510	1500	-	1.13	0	1	500	1450	-	1.16	0	2	505	1475	35	1.15	0
550	8	572	2031	220	1.08	13	9	572	2217	233	1.18	11	17	572	2129	240	1.14	12
600	17	622	2683	219	1.11	59	11	614	2659	231	1.15	55	28	619	2674	226	1.13	57
650	7	659	3286	322	1.15	86	3	673	3383	275	1.11	100	10	664	3315	297	1.14	90
700	4	705	4025	310	1.15	100	3	732	4100	265	1.05	100	7	716	4057	270	1.10	100
750	3	768	4650	312	1.02	100	-	-	-	-	-	-	3	768	4650	312	1.02	100
TOTAL	40						27						67					
MEAN		635	2910	821	1.11			615	2707	686	1.15			627	2829	771	1.13	

Table 30. Age composition of Arctic charr taken by the commercial fishery at Coppermine River, 1994.

AGE	MALES							FEMALES							COMBINED						
		LENGTH (MM)		WEIGHT (G)			%		LENGTH (MM)		WEIGHT (G)			%		LENGTH (MM)		WEIGHT (G)			%
(YR)	N	MEAN	SD	MEAN	SD	K	MAT	N	MEAN	SD	MEAN	SD	K	MAT	N	MEAN	SD	MEAN	SD	K	MAT
7	2	605	21	2700	141	1.22	100	2	625	49	2825	813	1.14	100	4	615	33	2763	482	1.18	100
8	5	598	29	2500	322	1.17	100	8	613	31	2956	514	1.28	88	12	609	30	2808	504	1.23	92
9	16	615	41	2709	615	1.16	88	4	598	17	2450	274	1.15	50	20	612	37	2658	567	1.15	80
10	8	610	51	2806	695	1.22	75	11	649	63	3500	891	1.26	100	19	633	60	3208	868	1.25	89
11	2	695	35	4200	707	1.24	100	2	670	57	4075	1096	1.34	100	4	683	41	4138	756	1.29	100
12	2	735	64	4875	1732	1.20	100	.	.	.	.	.	.	.	2	735	64	4875	1732	1.20	100
13	.	.	.	.	.	.	.	1	540	.	2300	.	1.46	100	1	540	.	2300	.	1.46	100
14	1	840	.	7350	.	1.24	100	.	.	.	.	.	.	.	1	840	.	7350	.	1.24	100
TOTAL	36							28							63						
MEAN		628	63	3033	1132	1.19			627	52	3145	819	1.25			629	58	3092	1006	1.21	
MEAN AGE		9.4							9.3							9.3					

Table 31. Length composition of Arctic charr taken by the commercial fishery at Coppermine River, 1994.

LENGTH INTERVAL	MALES						FEMALES						COMBINED					
		LENGTH (MM)	WEIGHT (G)			%		LENGTH (MM)	WEIGHT (G)			%		LENGTH (MM)	WEIGHT (G)			%
(MM)	N	MEAN	MEAN	SD	K	MAT	N	MEAN	MEAN	SD	K	MAT	N	MEAN	MEAN	SD	K	MAT
500	-	-	-	-	-	-	1	540	2300	-	1.46	100	1	540	2300	-	1.46	100
550	15	578	2357	227	1.22	80	9	584	2467	137	1.24	67	23	581	2396	207	1.22	74
600	11	619	2750	322	1.16	91	13	623	3058	450	1.26	100	24	621	2917	419	1.21	96
650	6	665	3250	430	1.10	100	4	658	3675	320	1.29	100	10	662	3420	430	1.18	100
700	4	720	4350	324	1.17	100	5	728	4870	513	1.26	100	9	724	4639	496	1.22	100
750	1	780	6100	-	1.29	100	1	760	4900	-	1.12	100	2	770	5500	849	1.20	100
800	1	840	7350	-	1.24	100	-	-	-	-	-	-	1	840	7350	-	1.24	100
TOTAL	38						33						70					
MEAN		631	3051	1115	1.18			634	3279	925	1.26			633	3167	1034	1.22	

Table 32. Age composition of Arctic charr taken by the commercial fishery at Steep Bank Bay, 1994.

AGE			FORK LENGTH(MM)		DRESSED WEIGHT(G)	
(YR)	NO.	PERCENT	MEAN	SD	MEAN	SD
7	5	25	555	46	1880	422
8	3	15	528	23	1600	132
9	3	15	648	29	3067	525
10	7	35	574	36	1936	382
11	1	5	581	-	2050	-
12	1	5	601	-	2100	-
TOTAL	20					
MEAN			575	48	2055	568
MEAN AGE	9.0					

Table 33. Length composition of Arctic charr taken by the commercial fishery at Steep Bank Bay, 1994.

LENGTH INTERVAL			MEAN FORK	DRESSED WEIGHT(G)	
(MM)	NO.	PERCENT	LENGTH(MM)	MEAN	SD
450	1	4	477	1200	.
500	3	13	516	1550	100
550	11	46	572	1927	227
600	6	25	613	2242	273
650	3	13	674	3067	525
TOTAL	24				
MEAN			584	2071	528

Table 34. Age composition of Arctic charr taken by the commercial fishery at Chesterfield Inlet, Zone 2, 1994.

AGE			FORK LENGTH(MM)		DRESSED WEIGHT(G)	
(YR)	NO.	PERCENT	MEAN	SD	MEAN	SD
6	2	9	536	29	1950	283
7	6	27	557	20	2000	251
8	6	27	570	31	2158	231
9	8	36	557	50	2275	734
TOTAL	22					
MEAN			559	36	2139	477
MEAN AGE	7.9					

Table 35. Length composition of Arctic charr taken by the commercial fishery at Chesterfield Inlet, Zone 2, 1994.

LENGTH INTERVAL			MEAN FORK	DRESSED WEIGHT(G)	
(MM)	NO.	PERCENT	LENGTH(MM)	MEAN	SD
500	9	32	526	1767	75
550	13	46	571	2246	177
600	4	14	615	2750	402
650	2	7	670	3375	460
TOTAL	28				
MEAN			570	2245	500

Table 36. Age composition of Arctic charr taken by the commercial fishery at Chesterfield Inlet, Zone 3, 1994.

AGE			FORK LENGTH(MM)		DRESSED WEIGHT(G)	
(YR)	NO.	PERCENT	MEAN	SD	MEAN	SD
6	4	4	517	29	1625	413
7	12	11	544	40	1888	419
8	27	24	571	51	2030	547
9	32	29	598	45	2253	462
10	21	19	632	48	2576	737
11	9	8	591	60	2167	540
12	3	3	624	63	2450	1033
13	2	2	604	6	2275	35
14	1	1	638	-	2300	-
TOTAL	111					
MEAN			590	55	2197	593
MEAN AGE	9.0					

Table 37. Length composition of Arctic charr taken by the commercial fishery at Chesterfield Inlet, Zone 3, 1994

LENGTH INTERVAL			MEAN FORK	DRESSED WEIGHT(G)	
(MM)	NO.	PERCENT	LENGTH(MM)	MEAN	SD
400	2	2	439	1050	212
450	1	1	497	1350	.
500	24	19	529	1721	338
550	45	36	575	2027	322
600	29	23	617	2374	397
650	20	16	672	2953	365
700	3	2	728	3617	831
TOTAL	124				
MEAN			593	2215	598

Table 38. Age composition of Arctic charr taken by the commercial fishery at Fish Bay (Chesterfield Inlet), 1994.

AGE			FORK LENGTH(MM)		DRESSED WEIGHT(G)	
(YR)	NO.	PERCENT	MEAN	SD	MEAN	SD
6	9	7	543	16	1839	183
7	17	13	551	26	1844	324
8	23	17	576	35	2096	389
9	57	42	585	33	2177	358
10	20	15	595	44	2320	608
11	5	4	638	30	2740	349
12	2	1	661	86	3075	1025
13	3	2	666	69	3000	900
TOTAL	136					
MEAN			583	42	2172	482
MEAN AGE	8.7					

Table 39. Length composition of Arctic charr taken by the commercial fishery at Fish Bay (Chesterfield Inlet), 1994.

LENGTH INTERVAL			MEAN FORK	DRESSED WEIGHT(G)	
(MM)	NO.	PERCENT	LENGTH(MM)	MEAN	SD
500	32	21	530	1692	188
550	64	43	573	2023	265
600	45	30	618	2514	191
650	3	2	666	3233	104
700	5	3	711	3660	397
TOTAL	149				
MEAN			584	2180	495

Table 40. Age composition of Arctic charr taken by the commercial fishery at Rankin Inlet, 1993.

AGE			FORK LENGTH(MM)		DRESSED WEIGHT(G)	
(YR)	NO.	PERCENT	MEAN	SD	MEAN	SD
5	1	1	390	-	600	-
6	2	2	400	28	650	0
7	9	9	534	57	1667	437
8	30	30	558	46	1860	404
9	22	22	589	31	2143	306
10	19	19	603	50	2266	669
11	10	10	603	43	2110	422
12	4	4	595	14	2200	191
13	1	1	640	-	2450	-
15	1	1	625	-	2400	-
TOTAL	99					
MEAN			574	57	1996	531
MEAN AGE	9.0					

Table 41. Length composition of Arctic charr taken by the commercial fishery at Rankin Inlet, 1993.

LENGTH INTERVAL			MEAN FORK	DRESSED WEIGHT(G)	
(MM)	NO.	PERCENT	LENGTH(MM)	MEAN	SD
350	3	3	383	617	29
400	4	4	419	775	119
450	2	2	470	1050	71
500	25	22	534	1644	176
550	36	32	570	1951	171
600	37	33	616	2327	207
650	4	4	661	2888	442
700	1	1	735	4250	.
TOTAL	112				
MEAN			570	1967	544

Table 42. Age composition of Arctic charr taken by the commercial fishery at Baker Foreland, 1993.

AGE			FORK LENGTH(MM)		DRESSED WEIGHT(G)	
(YR)	NO.	PERCENT	MEAN	SD	MEAN	SD
5	1	1	440	-	850	-
6	2	2	493	53	1300	424
7	19	20	532	38	1721	377
8	33	34	567	38	2026	443
9	10	10	566	41	2065	357
10	11	11	580	28	1950	402
11	12	13	620	53	2613	719
12	4	4	631	26	2750	476
13	3	3	605	54	2267	681
14	1	1	700	-	3500	-
TOTAL	96					
MEAN			570	53	2060	579
MEAN AGE	8.8					

Table 43. Length composition of Arctic charr taken by the commercial fishery at Baker Foreland, 1993.

LENGTH INTERVAL			MEAN FORK	DRESSED WEIGHT(G)	
(MM)	NO.	PERCENT	LENGTH(MM)	MEAN	SD
400	2	2	435	850	0
450	6	5	474	1133	108
500	21	19	525	1600	157
550	51	46	572	2073	295
600	19	17	614	2429	127
650	8	7	656	2969	423
700	3	3	710	3600	409
TOTAL	110				
MEAN			573	2077	571

Table 44. Age composition of Arctic charr taken by the commercial fishery at Ferguson River, 1993.

AGE			FORK LENGTH(MM)		DRESSED WEIGHT(G)	
(YR)	NO.	PERCENT	MEAN	SD	MEAN	SD
5	1	4	520	-	1800	-
6	3	12	548	45	2100	522
7	8	32	558	28	2194	257
8	7	28	570	15	2236	201
9	5	20	595	46	2700	779
11	1	4	550	-	2000	-
TOTAL	25					
MEAN			566	34	2272	458
MEAN AGE	7.6					

Table 45. Length composition of Arctic charr taken by the commercial fishery at Ferguson River, 1993.

LENGTH INTERVAL			MEAN FORK	DRESSED WEIGHT(G)	
(MM)	NO.	PERCENT	LENGTH(MM)	MEAN	SD
500	8	23	529	1956	172
550	21	60	574	2281	242
600	5	14	602	2540	305
650	1	3	660	4000	.
TOTAL	35				
MEAN			570	2293	416

Table 46. Age composition of Arctic charr taken by the commercial fishery at the Ferguson River, 1994.

AGE			FORK LENGTH(MM)		DRESSED WEIGHT(G)	
(YR)	NO.	PERCENT	MEAN	SD	MEAN	SD
5	1	1	554	-	2300	-
6	25	19	575	49	2426	577
7	70	53	586	43	2505	591
8	23	17	604	42	2715	559
9	9	7	598	51	2517	509
10	2	2	553	4	2200	141
11	2	2	703	117	3850	1980
TOTAL	132					
MEAN			589	48	2542	617
MEAN AGE	7.2					

Table 47. Length composition of Arctic charr taken by the commercial fishery at Ferguson River, 1994.

LENGTH INTERVAL			MEAN FORK	DRESSED WEIGHT(G)	
(MM)	NO.	PERCENT	LENGTH(MM)	MEAN	SD
500	24	16	525	1854	182
550	60	41	570	2352	258
600	49	33	622	2846	361
650	11	7	669	3177	538
700	2	1	710	4550	495
750	1	1	785	5250	.
TOTAL	147				
MEAN			591	2547	597

Table 48. Age composition of Arctic charr taken by the commercial fishery at Pistol Bay, 1994.

AGE			FORK LENGTH(MM)		DRESSED WEIGHT(G)	
(YR)	NO.	PERCENT	MEAN	SD	MEAN	SD
5	3	2	517	64	1517	451
6	34	21	541	33	1879	408
7	59	37	555	37	1934	448
8	28	17	583	31	2189	343
9	27	17	589	40	2370	484
10	6	4	583	20	2092	451
11	3	2	612	43	2433	437
12	1	1	643	-	2600	-
TOTAL	161					
MEAN			564	41	2052	467
MEAN AGE	7.5					

Table 49. Length composition of Arctic charr taken by the commercial fishery at Pistol Bay, 1994.

LENGTH INTERVAL			MEAN FORK	DRESSED WEIGHT(G)	
(MM)	NO.	PERCENT	LENGTH(MM)	MEAN	SD
450	5	3	465	1180	130
500	45	26	527	1692	289
550	90	53	570	2088	277
600	24	14	619	2567	288
650	7	4	659	3014	445
TOTAL	171				
MEAN			566	2062	461

Table 50. Age composition of Arctic charr taken by the commercial fishery at Wilson Bay, 1994.

AGE			FORK LENGTH(MM)		DRESSED WEIGHT(G)	
(YR)	NO.	PERCENT	MEAN	SD	MEAN	SD
5	2	1	450	105	1025	742
6	50	22	562	34	2042	408
7	78	34	578	28	2222	364
8	51	22	596	36	2451	577
9	30	13	612	39	2547	521
10	9	4	610	49	2533	776
11	4	2	601	38	2350	593
12	1	0	658	-	2950	-
13	2	1	651	112	2900	1697
TOTAL	227					
MEAN			584	41	2290	532
MEAN AGE	7.5					

Table 51. Length composition of Arctic charr taken by the commercial fishery at Wilson Bay, 1994.

LENGTH INTERVAL			MEAN FORK	DRESSED WEIGHT(G)	
(MM)	NO.	PERCENT	LENGTH(MM)	MEAN	SD
350	1	0	376	500	.
450	1	0	493	1500	.
500	33	14	531	1738	216
550	129	54	574	2138	257
600	56	23	618	2683	297
650	17	7	660	3159	551
700	3	1	712	3900	391
TOTAL	240				
MEAN			585	2295	526

Table 52. Length composition of Arctic charr taken by the commercial fishery at Arrowsmith River, 1993.

LENGTH INTERVAL			MEAN FORK	DRESSED WEIGHT(G)	
(MM)	NO.	PERCENT	LENGTH(MM)	MEAN	SD
500	7	7	530	1620	357
550	37	37	571	1768	170
600	31	31	619	2235	240
650	18	18	661	2715	357
700	6	6	708	3383	242
750	1	1	770	4649	.
TOTAL	100				
MEAN			610	2199	590

Table 53. Length composition of Arctic charr taken by the commercial fishery at Becher River, 1993.

LENGTH INTERVAL			MEAN FORK	DRESSED WEIGHT(G)	
(MM)	NO.	PERCENT	LENGTH(MM)	MEAN	SD
500	4	4	535	1560	57
550	20	20	578	1934	163
600	36	36	625	2416	272
650	28	28	667	2867	394
700	9	9	709	3597	264
750	2	2	770	4366	240
800	1	1	800	4876	.
TOTAL	100				
MEAN			636	2582	672

Table 54. Length composition of Arctic charr taken by the commercial fishery at Keith Bay area, 1993.

LENGTH INTERVAL (MM)	NO.	PERCENT	MEAN FORK LENGTH(MM)	DRESSED WEIGHT(G) MEAN	SD
500	5	5	536	1656	129
550	37	37	572	1873	145
600	37	37	617	2183	245
650	16	16	659	2693	201
700	4	4	720	3402	278
800	1	1	820	3402	.
TOTAL	100				
MEAN			609	2185	454